

State of Utah DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

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	Minerals Reclamation and I	Development Program		
PHONE: FAX:	(801) 538-5291 (801) 359-3940	<u> </u>		
	EXECUTIVE	SUMMARY		
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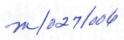
Michael O. Leavitt

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FACSIMILE COVER SHEET

DATE:	4/18/97	
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FROM:	TMUNSON	
	Minerals Reclamation and Development Program	
PHONE:	(801) 538-5291	
FAX:	(801) 359-3940	
SUBJECT:	EXECUTIVE SUMMARY	
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TO:	MITHE BROWN	
FAX NUM	IBER: 801 264 -6874	
FROM:	Minerals Reclamation and Development Program	



ID No: M/027/006

Revised April 15, 1997

Mine Name: Cricket Mountain Quarry	I.D. No: M/027/006
Operator: Continental Lime Incorporated	County: Millard
P. O. Box 669	New/Existing: Existing (original approval-1/6/81)
Delta, Utah 84624	Mineral Ownership: BLM/State/patented lands
	Surface Ownership: BLM/State/patented lands
Telephone: (801) 864-3823 264 -6880	Lease No.(s): ML-355572
Contact Person: Mike Brown	Permit Term: Life of mine
20 GEARS +	
Life of Mine: 1999 NEED CLI VERIFICATION (unless	additional reserves permitted)
SECTION 30 STRAND N 1/2° SECTION 3	
Legal Description: SE1/4 and SW1/ Section 25, NE1/4	4 and NW1/4 Section 36, Township 21 South,
Range 10 West, SLB&M, Millard County, Utah	
Mineral(s) to be Mined: High-grade calcium limestone	
Mining Methods: Conventional bench type mining meth	ods using drill and blast procedures to
produce quarry run sized limestone.	
Area to be Disturbed: Entire mine operation now totals 4	57.7 acres. This revision increased the disturbed
area by 288.7 acres. (213.4 acres BLM, 74 acres private,	1.3 acres state).
Present Land Use: Wildlife habitat, livestock grazing, re-	ecreation, and mining
Postmining Land Use: Wildlife habitat, livestock grazi	ng, recreation

Variances from Reclamation Standards (Rule R647) Granted:

R647-4-111(8) Roads - The section of the main haul road from the processing plant to the quarry switchback will be allowed to remain after final reclamation.

R647-4-111.12 Topsoil redistribution - Insufficient topsoil exists to sufficiently cover all disturbed areas with adequate soil. Amended fines will be used as a substitute soil material on benches. Approximately 78,000 cubic yards of topsoil will be salvaged and stockpiled. This material will be used on those areas with the greatest potential for revegetation. A minimum of 6 inches of fines will be used and amended on the pit benches and no soil material will be used on the angle of repose waste rock slopes. The Division concurs that this is the best use of soil resources and therefore this variance is granted.

R647-4-111.13 Revegetation - CLI has proposed a 50% revegetation standard for areas that will not receive topsoil. Test plots will be implemented to determine types and rates of soil amendments to achieve revegetation success. The Division finds this proposed alternate standard acceptable. Because of the lack of soil resources for reclamation. The Division concurs that the revegetation standard for areas that do not receive topsoil should be reduced. CLI has proposed an alternate standard of 50% of the pre-existing vegetation cover. The Division finds this alternative acceptable and a variance is granted for those areas not receiving topsoil.

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Soils and Geology:

Soil Description: Lithic Xerollic Calciorthids - Xerollic Calciorthids Association, mildly - strongly	
alkaline, and range from stony - sandy loams. well-drained, permeability - moderate to rapid, runoff -	
medium to very rapid, and sediment production - moderate	

pH: 8.0 - 8.8

Special Handling Problems: Desert soils, composed of silty clays and fine sandy silts, exist at the mine site, and do not pose any special handling problems. However, due to the rocky nature of the site, few native soils have been salvaged for the purpose of revegetation. Fines produced from the crushing of limestone will be used for the reconstruction of soils, over portions of the site. Test plots will be implemented to determine type and rates of soil amendments to achieve reclamation success.

Geology Description: Geology at the site consists of: alluvial and colluvial sands and gravels, shales and low-grade limestone, and high grade limestone. The sand and gravel material is a Quaternary Age lake terrace deposit. The shales and limestones are of the Cambrian Age and are divided into four units: Marjum Formation, Swasey limestone, Whirlwind formation, and Dome Limestone.

Hydrology:

Ground Water Description: Ground water is encountered at approximately 600 feet below the lowest elevation at the quarry. The quality of the water is very poor. It is saline and is used for dust control and some applications at the processing plant.

Surface Water Description: No surface water is found in the immediate vicinity of the proposed quarry or any of the associated facilities. Runoff from rain and snow melt follows the drainage of the normally dry Beaver River. North of the Cricket Mountains this drainage joins the Sevier River approximately 20 miles from the inlet to Sevier dry lake, a 200,000 acre mud flat.

Water Monitoring Plan: not applicable

Ecology:

Vegetation Type(s); Dominant Species: Scattered pinyon and juniper trees are located on the east slopes of the Cricket Mountains in the vicinity of the proposed quarry. The remainder of the area is flatland covered with cold desert vegetation, including: sagebrush, saltbrush, galleta grass, Indian ricegrass, etc. Percent Surrounding Vegetative Cover: Ranges from 10% to 40%, depending on slope, soil depth and rock

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Wildlife Concerns: Wildlife density on the subject lands is low. Reptiles, song birds, rabbits and small predators are the most common. Small populations of deer and antelope inhabit the Cricket Mountain area. No critical or otherwise important nesting or wintering areas occur in this general area. Continental Lime is working with Utah DWR in establishing supplemental, adjacent area, water sources (guzzlers) for local wildlife usage.

Surface Facilities: This Revision will create a second crushing and screening facility (BB Dolomite Crusher) near the BB Dolomite Quarry. No other new structures are proposed to be added to the existing mine facilities under this Revision. The existing crushing and screening facility at the Poison Mountain Quarry will continued to be used.

Mining and Reclamation Plan Summary:

During Operations: (Revision Areas Only)

Three new quarries will be created under this revision to the mine plan. The new quarries are the BB Dolomite Quarry, the Flat Iron Quarry, and the North Lobe Quarry. The Flat Iron and North Lobe Quarries are also referred to as the West Quarries or West Quarry Area. Ore will be mined using conventional bench type mining methods. Drilling and blasting will be used to break up overburden and ore. The ore will be loaded into haul trucks with front-end loaders and transported to the crushers. Quarry bench faces will be approximately 20 to 25 feet high with catch benches 50 to 60 feet wide, and mining benches 200 to 300 feet wide. Overburden will be transported to one of four designated disposal areas and dumped creating angle of repose dump slopes Undersize materials from crushing will be placed on the existing Poison Mountain Stockpile or in the new BB Dolomite Undersize Stockpile.

After Operations:

SUMMARY OF RECLAMATION PLAN BY REVISION AREA (NEED CLI VERIFICATION)

Overburden Disposal Areas #1, #2, #3, #4 (67 acres)

Dump tops to receive 6 inches of topsoil, seed & amendments.

Slopes to remain at angle of repose & receive seed only.

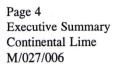
BARE ROCK

Angle of repose slopes granted a variance from 70% revegetation standard. Alternate standard of 50% revegetation success on slopes established until test plot data supports other standard.

Poison Mtn. Undersize Stockpile (existing stockpile expanded by 4.1 acres)

Top to receive 6 inches of topsoil, seed & amendments

All slopes to be regraded to 3H:1V, receive 6 inches of topsoil, seed & amendments





BB Dolomite Undersize Stockpile (29.5 acres)

Top to receive 1 foot of topsoil, seed & amendments

North & west slopes regraded to 3H:1V.

North & west slopes to receive 1 foot of topsoil, seed & amendments

South & east sides left at grade. South & east sides to receive seed & amendments. These slopes are granted a variance from the 70% revegetation standard. Alternate standard of 50% revegetation success on slopes established until test plot data supports other standard.

BB Dolomite Quarry (51.6 acres), Flat Iron Quarry (63.1 acres), North Lobe Quarry (33.5 acres)

Benches covered with 6 inches of fines & ripped.

Bench area estimated as 85% of quarry footprint.

Benches to receive seed & amendments.

Bench faces will be allowed to remain at angles steeper than 45 degrees. The overall pit slope angles will range from 18 to 20 degrees.

Boulders placed to control public access.

Unstable highwall areas will be managed to mitigate safety hazards.

Roads within quarry excavations in bedrock will be left unreclaimed.

Bench areas granted variance from 70% revegetation standard. Alternate standard of 50% revegetation success on benches established until test plot data supports other standard.

Poison Mtn. Crusher & Facilities (no increase in existing 17 acres)

All structures removed or demolished. Demolition debris removed from site.

Concrete walls/footings above grade demolished & removed from site.

Concrete foundations below grade broken up & buried onsite.

Affected areas will receive 6 inches or 1 foot of topsoil, seed & amendments.

BB Dolomite Crusher & Facilities (2.4 acres)

All structures removed or demolished. Demolition debris removed from site.

Concrete walls/footings above grade demolished & removed from site.

Concrete foundations below grade broken up & buried onsite.

Affected area will receive 4 inches of topsoil, seed & amendments.

Roads in West Quarry & BB Dolomite Areas (19.4 acres)

Roads recontoured & ripped.

Roads to receive 6 inches of topsoil, seed & amendments.

Haul Road from Quarry Switchback to Processing Plant

This section of road allowed to remain unreclaimed under previous variance granted.

Topsoil Stockpiles (5.2 acres)

Stockpile areas regraded & ripped.

Stockpile areas to receive seed & amendments.

Amendments = ammonium nitrate 100 lb/acre + single super phosphate 100 lb/acre + composted manure 3 tons/acre.

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Surety:

Amount: \$1,028,000 (may need to adjust this based on latest info from SRK)

Form: Joint DOGM-BLM Surety Bond #XXX-XXX with ?

Renewable Term: 5 years - 2002

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